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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,558	02/26/2004	Jeffrey S. Haas	IL-11088	7059

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EXAMINER	
SIEFKE, SAMUEL P	

ART UNIT	PAPER NUMBER
1797	

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10/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/788,558	HAAS ET AL.	
	Examiner	Art Unit	
	Samuel P. Siefke	1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status

This Office Action is in response to the arguments dated 8/8/07. Claims 1-24 are currently pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kardish et al. (USPN 5,648,047) in view of Dietze et al. (USPN 5,035,862) and in further view of Applicant's admitted prior art (page 22-23 of the instant specification).

Kardish teaches a hand-held device for rapid colorimetric detection of explosives, narcotics, and other chemicals which can be accurately operated by non-skilled personnel and perform numerous tests in a quick sequential manner without exposing a user to hazardous reagents and without exposing sensitive reagents to deteriorating environmental conditions, the device comprising (a) a housing for handling and using the device, the housing including a sampling area an a testing area; (b) a roll of substrate for sampling materials suspected as including the chemical; (b) a feeding reel being rotatably connected to the housing, the feeding reel being for accommodating the roll of substrate; (c) at least one container for accommodating at least one detecting reagent, the at least one detecting reagent is for the colorimetric detection of the chemical; and (d) at least one dispensing mechanism for dispensing a predetermined volume of the at least one reagent onto the substrate at the testing area (abstract, see fig. 1, col. 5, lines 30- col. 6, lines 60). Kardish teaches the testing area can be made of paper, cloth (polyester material) or a synthetic membrane (col. 5, line 45). Each reagent container has individual dispensing mechanisms for delivering the reagent to the test

area (col. 6, lines 8-35). Kardish employs two elastic containers 28a and 28b that are tranparent (col. 6, lines 15). The word elastic means that the containers are flexible and are structurally capable of being squeeze. Kardish states, after the substrate is positioned at testing area 18, a predetermined volume, formed due to the flexibility of containers 28 and the capillary effect of tubes 32, an aliquot of reagent is deposited on the sample pad. This is due to the compression (squeeze) by dispensing mechanisms 30a and 30b (figure 1) on the flexible container to dispense reagent (col. 7, lines 33-45). The dispenser further comprises a check valve 41 at the end of the dispenser to prevent air from entering the containers.

Kardish does not teach providing a heater or dryer, or both employ under the sample area and a flat disk shaped sample pad.

Dietze teaches a heater that is placed in thermal contact with a test strip in order to achieve rapid and selective heating of individual test fields on the test strip (abstract). It would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a heater that is below and in thermal contact with the test strip in order to provide rapid and selective heating of the sample on the test strip. Regarding the chemical heater, see the instant application specification on page 12 regarding chemical heaters description. "This type of heater is well known in the art and need not be described here." It is well known in the art that adding heat to a reaction (sample and reagent) speeds up the reaction which is a desirable property to shorten the waiting time for the reaction product. Heating further increases the detection sensitivity (col. 1, lines 45-47). Therefore, in view of Applicant's admitted prior

art and Dietze, one of ordinary skill in the art at the time of the invention would modify Kardish to employ an electric or chemical heater to heat a reaction in order to speed up the reaction time and increase detection sensitivity. The heater of Dietze is a heating pad.

Regarding the dryer, it would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a dryer on the sample substrate in order to dry the reaction product so that a colorimetric determination can be made. It is well known in the art as admitted by the instant specification that dryers are employed for this purpose. The Applicant submits on page 22-23, dryer are well known in the art and need not be discussed here. The Applicant is referring to dryers and heaters for specifically drying sample when applied to the sample surface. The Examiner has provided proper motivation for why it would have been obvious to modify Kardish to employ a dryer to dry the reaction product so that a colorimetric determination can be made. This feature is routinely employed in test strips for rapid determination of colorimetric reactions. One of ordinary skill in the art would have recognized this feature and applied the dryer in the manner above. The Examiner notes that limitations on the manner in which the dryer is used are not attributed patentable weight in claims directed to a device. The device only has to disclose a structure that is capable of performing the function that the claim limitations requires.

Regarding claim 10, 12, 22 and 24 it would have been obvious to one having an ordinary skill in the art at the time of the invention to modify Kardish to employ a battery powered heater because the device is portable and would require an independent

power source to provide energy the to heater. Batteries are well known in the art as a portable power supply in these types of devices.

Regarding claim 13 and the disk shaped sample pad. Such change in shape is not considered a novel patentable feature because this is simply a matter of choice, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed shape of the sample pad was significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). The disk shape of a sample pad provides no patentable distinction over the rectangular test pad configuration of Kardish. The rectangular and round sample pads are interchangeable equivalents.

Regarding claim 23 it is the Examiner position that a switch (power on/off) is inherently associated with a heater other wise it would be on all the time or off and would not be able to be turned on or off, which would render a heater inoperable and useless. Dietze teaches alternating current flows through the coils 13b of the heater which clearly indicates a switch in electrical voltage (col. 3, lines 51-56). Therefore Dietze teaches a switch for controlling a heater.

Response to Arguments

Applicant's arguments filed 8/8/07 have been fully considered but they are not persuasive. Applicant argues, "There is no suggestion or motivation to combine the primary Kardish reference and the secondary Dietze reference." The Examiner has provided proper motivation to combine Kardish and Dietze. Seen from page 4 of this

Action, It is well known in the art that adding heat to a reaction (sample and reagent) speeds up the reaction which is a desirable property to shorten the waiting time for the reaction product. Heating further increases the detection sensitivity (col. 1, lines 45-47). Therefore, in view of Kardish in view of Dietze and Applicant's admitted prior art, one of ordinary skill in the art at the time of the invention would modify Kardish to employ an electric or chemical heater to heat a reaction in order to speed up the reaction time and increase detection sensitivity. Further, heating serves to reduce the time it takes for colorimetric reaction to take place which is a desired trait in biological testing methods.

Applicant argues, there is no teaching in either of the two references to combine the primary Kardish reference and the secondary Dietze reference to produce the inspection tester for testing for explosives defined by claim 1 and 13. The Examiner has provided a teaching as seen in Dietze col. 1, lines 45-47 to provide for heating the sample pad that contains the reagent and sample thereon in order to speed up reaction time and the Applicant's admitted prior art teaching of the dryer. This is a sound teaching that is relied on in chemical analyzers throughout the art and the Examiner has provided proper motivation to modify Kardish in view of Dietz and the Applicant's admitted prior art teaching to employ this heating and dryer device.

Applicant argues, "Applicants' claimed element a flat disk sample pad would not work in the Kardish reference and would destroy the operability of the Kardish reference device." The Applicant is referring to the sample pad in roll form as provided by Kardish. The disk shape of a sample pad provides no patentable distinction over the rectangular test pad configuration of Kardish. Such change in shape is not considered

a novel patentable feature because this is simply a matter of choice, which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the particular configuration of the claimed shape of the sample pad was significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966). The rectangular and round sample pads are interchangeable equivalants.

Applicant states, "Under MPEP §2142, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the references or to combine reference teachings." The Examiner has shown suggestion, motivation in the references along with knowledge generally available to one of ordinary skill in the art. Applicant states, "It should be noted that the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." It is widely accepted in the art and as seen by Dietze that heating a reagent and sample accelerates the reaction and increases detection sensitivity (col. 1, lines 45-47). Further, the applicant admits that dryers are well known in the art and need not be discussed in depth in the instant application. The Applicant is referring to dryers and heaters for specifically drying sample when applied to the sample surface. The Examiner has provided proper motivation for why it would have been obvious to modify Kardish to employ a dryer to dry the reaction product so that a colorimetric determination can be made. This feature is routinely employed in test strips for rapid determination of colorimetric reactions. One of ordinary skill in the art would have

recognized this feature and applied the dryer in the manner above. The Examiner notes that limitations on the manner in which the dryer is used are not attributed patentable weight in claims directed to a device. The device only has to disclose a structure that is capable of performing the function that the claim limitations requires.

Regarding the Declaration under 37 CFR 1.132, the Examiner has considered the evidence in view of the entire record as a whole but has came to the conclusion that the evidence of long felt need and commercial success in the art is not convincing. The prior art provided by the Examiner shows devices that are more than capable of performing quick on site explosive detection. Therefore the long felt need is already being met by the prior art of record. Further, the evidence submitted does not tie into the instant application other than to show that the instant device can be used to detect explosives like the prior art of record.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samuel P. Siefke whose telephone number is 571-272-1262. The examiner can normally be reached on M-F 7:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 571-272-1700. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Sam P. Siefke

October 26, 2007

Jill Warden
Supervisory Patent Examiner
Technology Center 1700